

In the Drawings

The attached replacement and annotated sheet(s) of drawings include changes to FIGS. 2
as follows:

FIG. 2 has been amended to change the reference designation of the trackball to “45,”
consistent with the specification.

Attachment: Replacement sheet(s)

Annotated sheet(s) showing changes

REMARKS

The Office Action mailed May 17, 2006 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Drawing Changes

The attached replacement and annotated sheet(s) of drawings include changes to FIGS. 2 as follows:

FIG. 2 has been amended to change the reference designation of the trackball to "45," consistent with the specification.

Specification

The specification has been amended on page 11 in order to be consistent with the correction to FIG. 2, in which the reference numeral of the trackball has been changed "45" for consistency with the remainder of the specification.

Rejection(s) Pursuant to Judicially-Created Double Patenting

Claims 67-109 were rejected pursuant to the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-69 of prior U.S. pat. no. 6,697,043. Submitted herewith is a duly-executed Terminal Disclaimer. Withdrawal of the double-patenting rejection based on U.S. pat. no. 6,697,043 is respectfully requested.

Rejection(s) Under 35 U.S.C. § 102

Claims 89, 90, 92, 93, 97-102 and 104¹ stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Salcudean et al. (U.S. pat. no. 5,790,108; hereinafter, "Salcudean").

¹ The Office Action did not list the rejected claims in the first sentence introducing the anticipation rejection, as is customary. The only indication of the rejection claims was provided in the body of the rejection, from which this summary is derived.

Claim 89, from which Claims 90, 92, 93, 97-99 depend, has been amended to read as follows:

89. A device, comprising:
a housing;
a sensor coupled to the housing, the sensor configured to output a sensor signal associated with one of a movement and a position of the housing
an actuator assembly including a stationary portion that is mounted to the housing and an actuator portion that is movable with respect to the housing in response to said sensor signal; and
a mechanism including a flexure having at least a first flex joint and a second flex joint, the mechanism configured to couple the actuator portion of the actuator assembly to the housing such that movement of the actuator portion operates to provide haptic feedback to the housing in the form of an inertial force that is transferred to the housing by way of the stationary portion of the actuator assembly.

Salcudean does not disclose, *inter alia*, a mechanism configured to couple an actuator portion of an actuator assembly to a housing of a device such that movement of the actuator portion operates to provide haptic feedback to the housing in the form of an inertial force that is transferred to the housing by way of a stationary portion of the actuator assembly. In Salcudean, E-core magnet 122 and coil 124 are mounted to the lower plate in FIG. 6 (no reference number given), while permanent magnet 126 is mounted to movable tactile member 22, which the Office Action contends is the housing. Given this interpretation, Salcudean fails to disclose a mechanism that couples an actuator portion of an actuator assembly to a housing (tactile member 22) such that movement of the actuator portion operates to provide haptic feedback to the housing *in the form of an inertial force that is transferred to the housing by way of a stationary portion of the actuator assembly*. Salcudean also fails to read on any other reasonable interpretation of Claim 89, and for this reason at least, Claim 89, along with Claims 90, 92, 93, 97-99 dependent therefrom; is patentable over Salcudean.

It will be appreciated that, according to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102 only if each and every claim element is found, either expressly or inherently

described, in a single prior art reference.² The aforementioned reasons clearly indicate the contrary, and withdrawal of the 35 U.S.C. § 102 rejection based on Salcudean is respectfully urged.

Claim 100, from which Claims 101, 102 and 104 depend, has been amended to read as follows:

100. A method, comprising:
generating a sensor signal associated with one of a movement and a position of an interface device; and
imparting haptic feedback to a housing of the interface device by way of an actuator assembly having a stationary portion that is rigidly mounted to the housing and a movable actuator portion that is movable with respect to the housing in response to the sensor signal, the movable actuator portion being coupled to the housing by way of a flexure having at least one flex joint.

Salcudean fails to show, *inter alia*, imparting haptic feedback to a housing of the interface device by way of an actuator assembly having a stationary portion that is rigidly mounted to the housing and a movable actuator portion that is movable with respect to the housing in response to the sensor signal, the movable actuator portion being coupled to the housing by way of a flexure having at least one flex joint. Considering the interpretation of the Office Action, movable permanent magnet is rigidly mounted to “housing” 22, and is not movable with respect thereto. For this reason at least, Claim 100, along with claims 102 and 104 dependent therefrom, are patentable over Salcudean.

Rejection(s) Under 35 U.S.C. § 103(a)

Claims 91, 94-96, 103, 105-109 were rejected under 35 U.S.C. § 103(a) as unpatentable over Salcudean et al. (U.S. pat. no. 5,790,108).

According to the Manual of Patent Examining Procedure (M.P.E.P.),

² Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.³

Claim 105, from which Claims 106-109 depend, has been amended to read as follows:

105. An apparatus configured to be coupled to an interface device to thereby provide haptic feedback to the interface device in response to a control signal, the apparatus comprising:
an actuator mass, an actuator housing, and a rotating shaft;
and
a flexure mechanism coupling the actuator housing to the interface device by way of at least one flex joint enabling relative motion between the actuator and the interface device in response to rotation of the rotating shaft caused by said control signal, said relative motion imparting an inertial force to the interface device to thereby provide said haptic feedback.

As explained above, in Salcudean, E-core magnet 122 and coil 124 are mounted to the lower plate in FIG. 6 (no reference number given), while permanent magnet 126 is mounted to movable tactile member 22, which the Office Action contends is the housing. Salcudean does not disclose a flexure mechanism coupling an actuator housing to the interface device by way of at least one flex joint enabling relative motion between the actuator and the interface device in response to rotation of the rotating shaft caused by said control signal, with relative motion imparting an inertial force to the interface device to thereby provide haptic feedback. Accordingly, Claim 105 and Claims 106-109 dependent therefrom, are patentable over Salcudean.

Conclusion


In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-1698.

Respectfully submitted,
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³ M.P.E.P § 2143.



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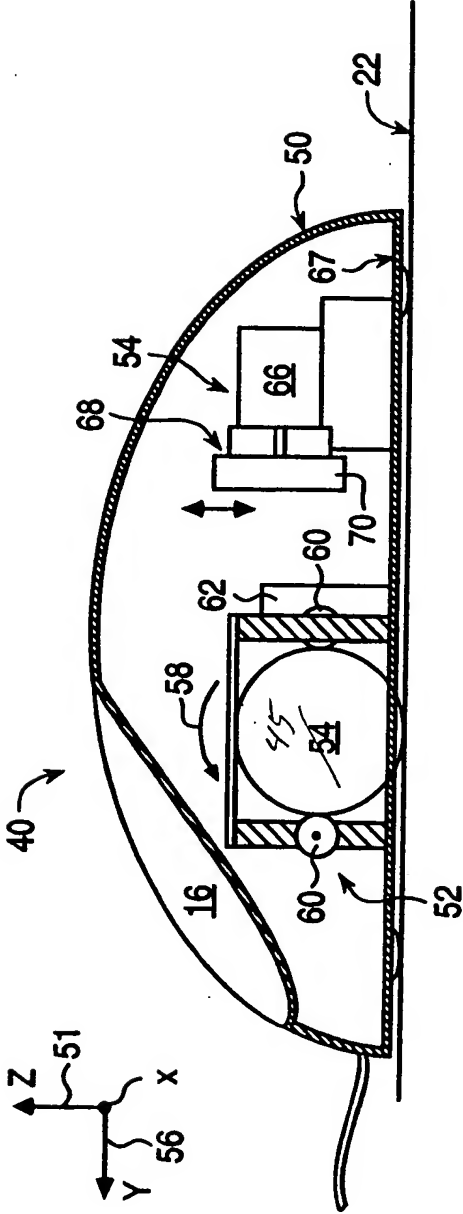


FIG. 2